

of problems encountered during space flight research. In addition, these people are available as consultants in selected areas of mathematics and physics. Dissemination of information takes the form of published papers and program sharing through the NASA Office of Technology Utilization.

4.2 STAFFING

In the MSF organization, programming and computer operation at the Centers is carried out primarily by contractor support personnel on a task-order basis. The use of contract support personnel is the result of several related circumstances. First, in order to maintain a dynamic staff at all times through the peaks and valleys of work requirements, it would have been necessary to recruit, train, and maintain a large staff and reservoir of programmers and operators on the civil service roles. By contracting on a non-personnel-services type contract, the Centers are able to have a readily available staff of personnel with these skills (see table 4-I). This action is not unlike the end item when contracting for space technology hardware. The civil service personnel are contract monitors over these skills. This arrangement accounts for the seemingly disproportionately high number of management-type assignments among the civil service personnel. This situation is especially noticeable in an organization such as MCC at the Manned Spacecraft Center (as shown in table 4-II), where no civil service personnel are used as operators, programmers, analysts, and so forth.